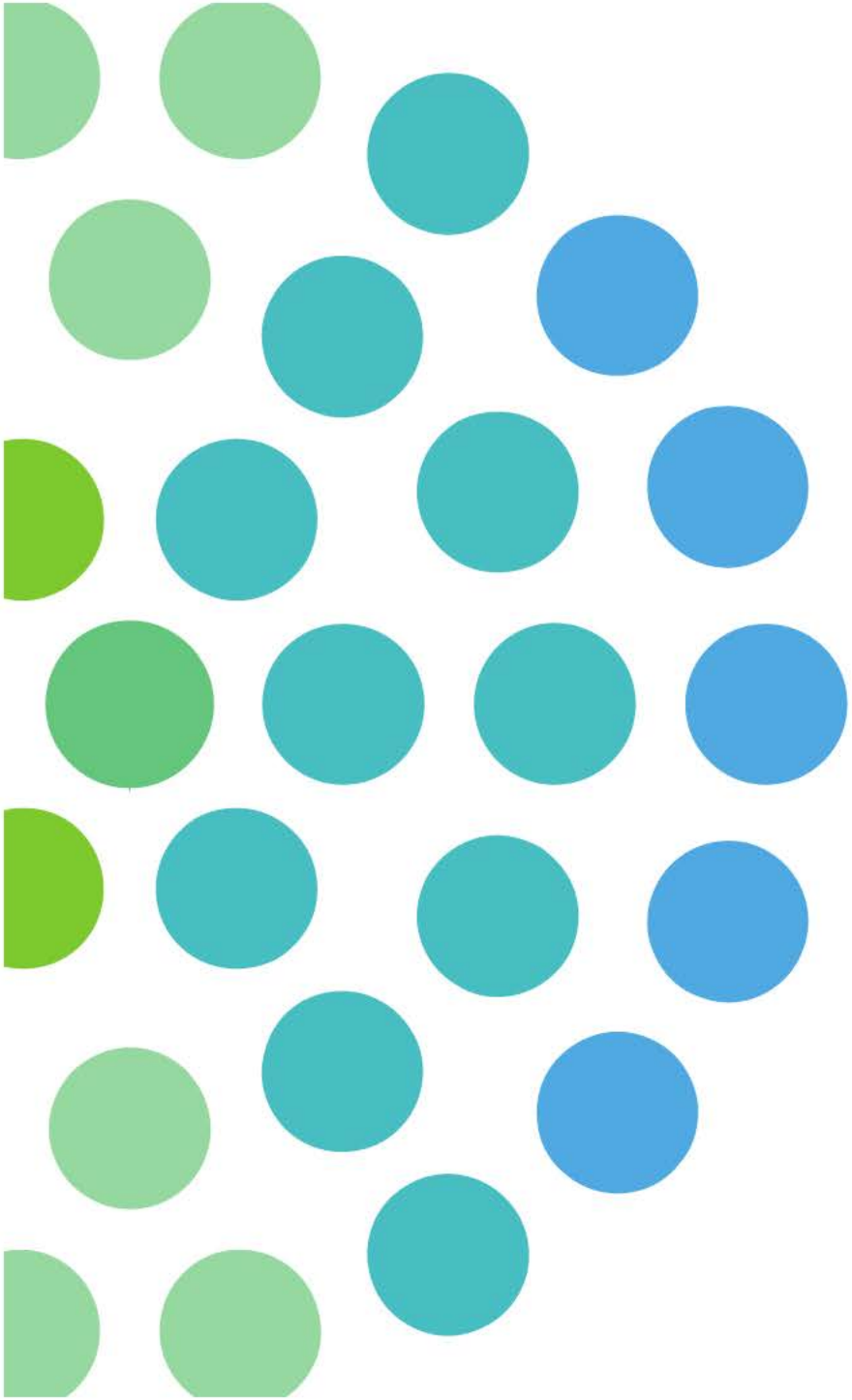


Uniti Fiber

Uniti Fiber's Story

Uniti Group: The Communications REIT

Uniti Strategy:

Engaged in Acquisition and Construction of Mission Critical Infrastructure in the Communications Industry

Uniti Fiber	Uniti Towers	Uniti Leasing
Provides a variety of network connectivity options, including cell site backhaul and small cell for wireless operators, and Ethernet, Wavelengths and Dark Fiber for telecom carriers and enterprises in lower-tier and rural markets	Leading provider to wireless carriers of customized communications infrastructure. Solutions primarily consist of land development and cell tower development	Acquires communications assets and leases them back on either an exclusive basis (triple net – NNN) or shared tenant basis (dark fiber IRU); Partners with anchor customers to acquire existing companies through mergers and acquisitions

Introduction to Uniti Fiber

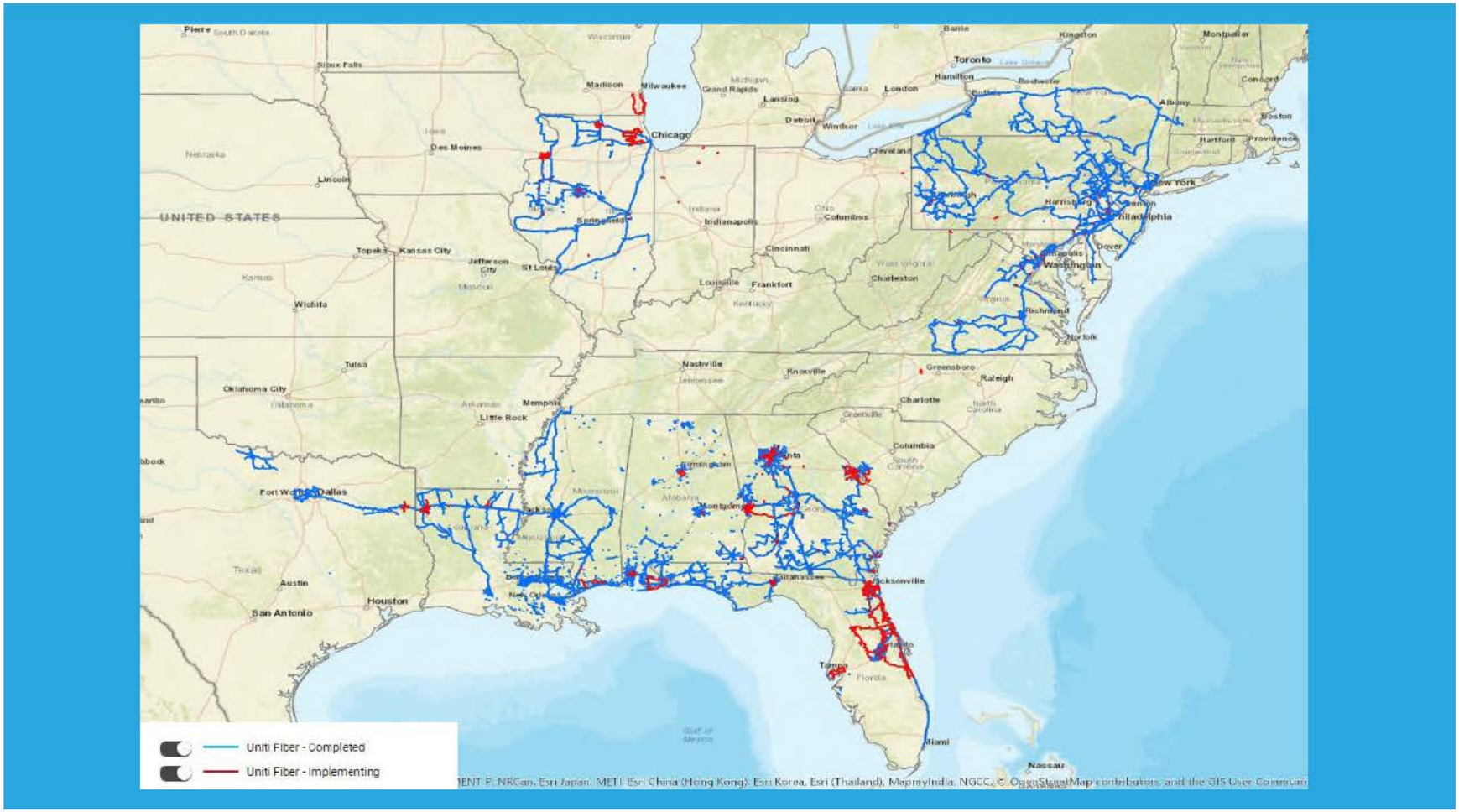
Uniti Fiber:

- A leading provider of fiber optic Infrastructure in Southeast, Northeast, and Midwest
- One of the largest pure fiber providers in the U.S.
- Focused on delivering highly-reliable, customized last-mile solutions in our footprint
- Unrivaled in reach across LATA, franchise and municipal boundaries along Gulf Coast
- Built on strong network foundation with high fiber counts and dynamic network design
- Led by highly-experienced management and operations teams that come from other fiber-industry entities.

Uniti Fiber Consolidation:

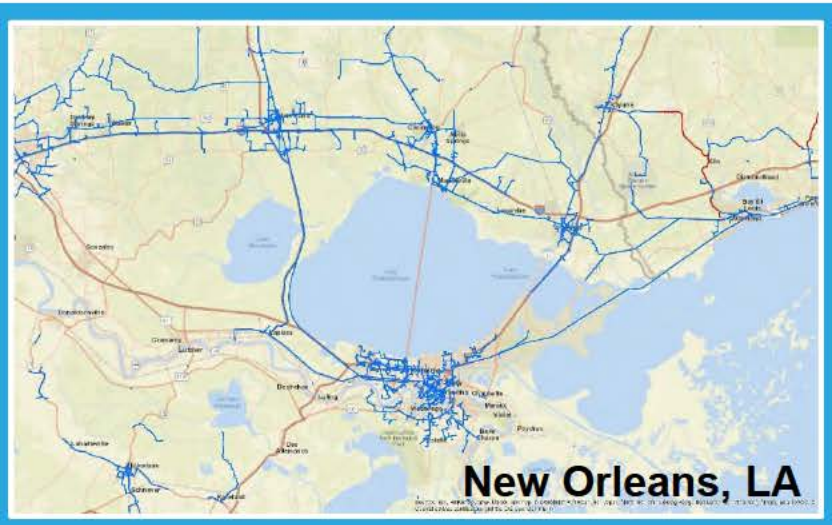
- The combination of a number of fiber infrastructure providers:
  - Southern Light (July 2017)
  - Hunt Telecom (July 2017)
  - Tower Cloud (August 2016)
  - PEG Bandwidth (May 2016)
  - Contact Network (InLine) (May 2016)

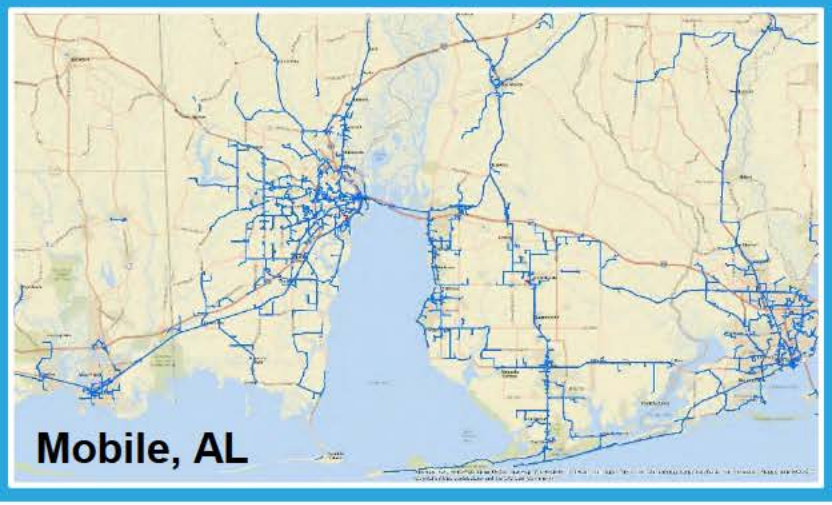
Uniti Fiber's Network



Last Mile Networks

Network value is in the unique last-mile fiber routes in attractive markets.





Uniti Fiber - Completed

Uniti Fiber - Implementing

Uniti Fiber

Uniti Fiber Services

Wireless Infrastructure

- Cell Site Backhaul
- Small Cell Deployments

Network Services

- Ethernet
- Wavelength Services
- Customized Networks
- Dedicated Internet Access
- Dark Fiber
- Voice
- Data Center Collocation

Customers

Government

- Department of Defense
- Other Federal Government Agencies
- State and Local Governments

Enterprise

- Health Care
- Financial Services
- Media and Entertainment
- Industrial and Manufacturing
- Small Businesses and Startups

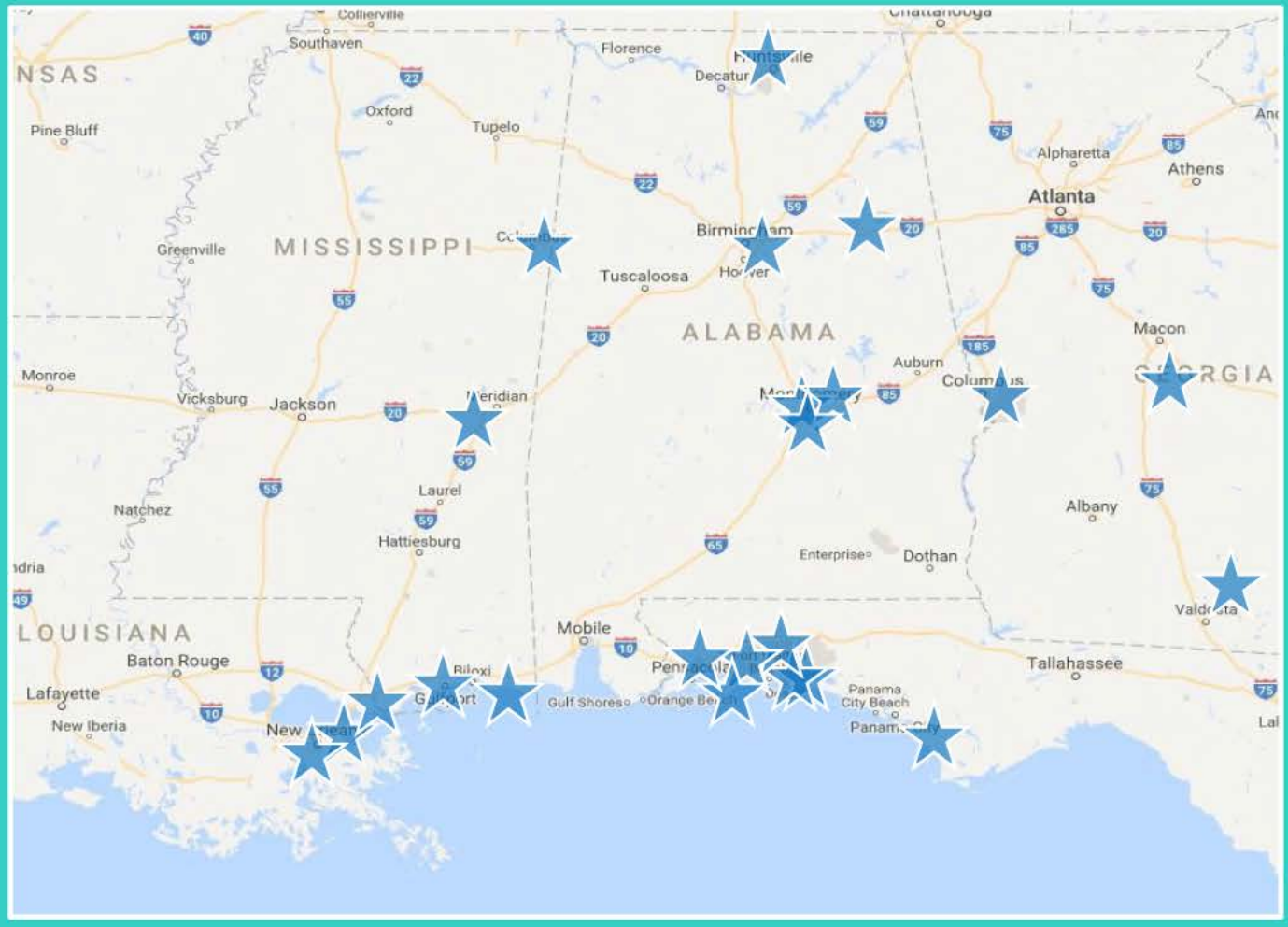
Education

- Colleges and Universities
- K-12 and Libraries
- E-Rate Program Participant

Telecom

- All Major U.S. Cellular Carriers
- National Carriers
- Regional Carriers
- Cable Providers
- CLECs

On-Net Military Installations



- 117th Air Refueling Wing
- Anniston Army Depot
- CIWT Corry Station
- Columbus AFB
- Eglin AFB
- Fort Benning
- Fort Rucker
- Keesler AFB
- Key Field Air National Guard
- NAS Belle Chasse
- NAS Pensacola
- NAS Whiting Field
- Maxwell AFB
- Maxwell-Gunter AFB
- MCSF New Orleans
- Montgomery Air National Guard
- Moody AFB
- NCBC Gulfport
- Redstone Arsenal
- Robins AFB
- Saufley Field
- Stennis Space Center
- Tyndall AFB

Wireless Infrastructure

Small Cell Deployment

- Limited spectrum
- Small cells supplement a larger antenna with much smaller, low-power antennas to provide enhanced coverage.
- Each location can handle approximately 50,000 calls per day, versus 500,000 calls for a macro cell site.
- Small cell technology is fundamental component to expanding both 4G and 5G network coverage, especially in urban and suburban areas. Significant growth will be needed to support IoT and 5G.
- Large-scale deployments in key markets, such as Orlando, New Orleans, Milwaukee, Tampa, Jacksonville.

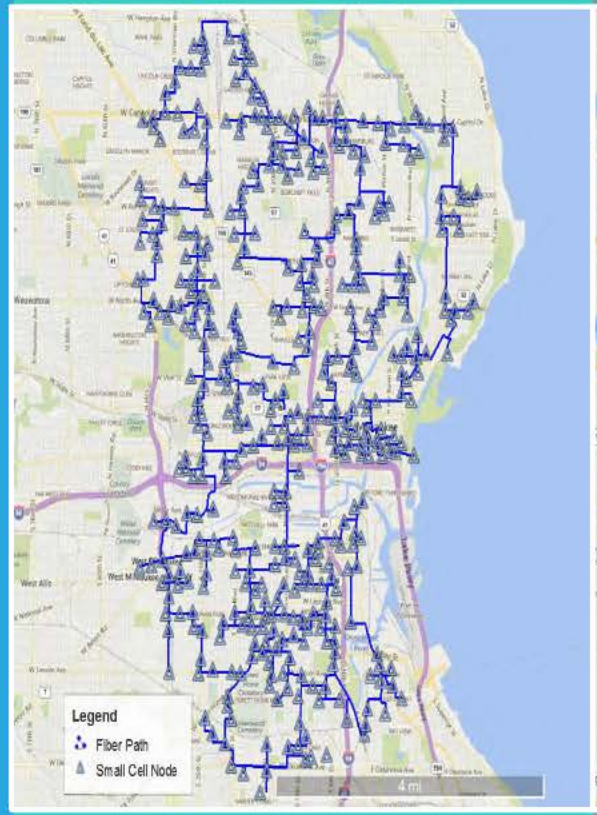
Small Cell deployment is key for 5G.

Example: Milwaukee Small Cell Deployment Project

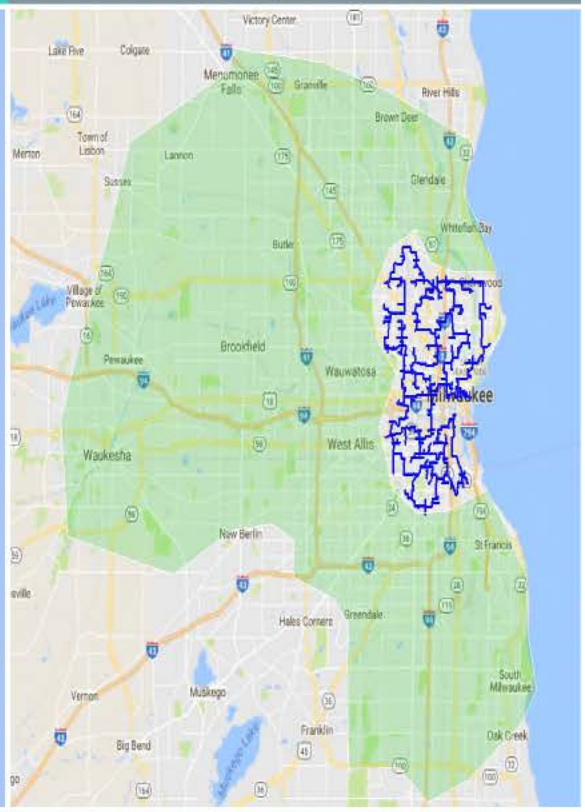
Overview

- Uniti Fiber is constructing a large-scale small cell densification project for T-Mobile in the Milwaukee market.
- Approximately 440 small cells across a number of local jurisdictions.
- Dense fiber construction project needed to support small cell nodes.
- 18-month total construction timeframe.

Phase 1
Initial Deployment Design

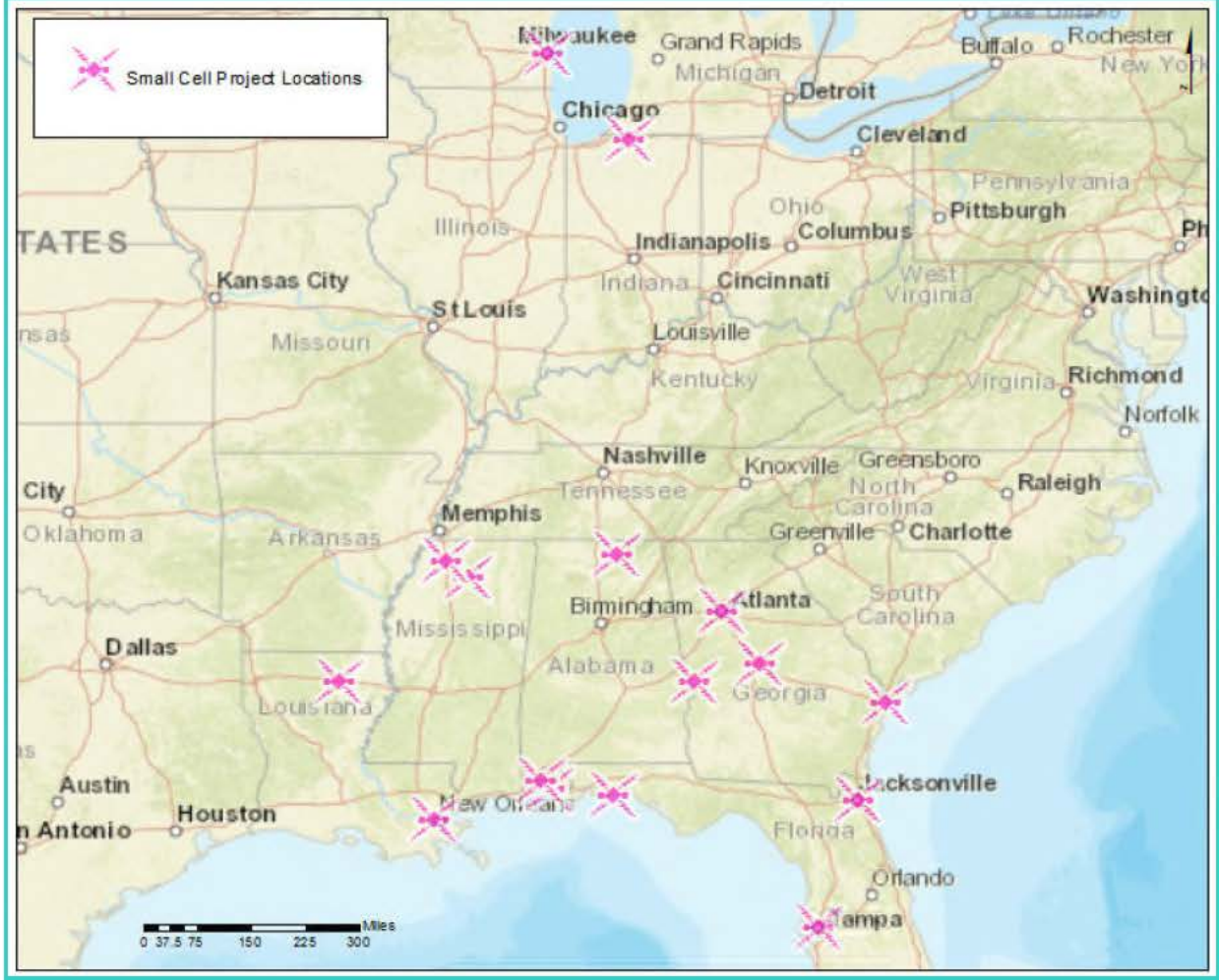


Phase 2
Potential Opportunity to Expand



Uniti Fiber

Small Cell Densification Markets



- Atlanta, GA
- Tampa, FL
- Savannah, GA
- Jacksonville, FL
- Milwaukee, WI
- Monroe, LA
- South Bend, IN
- Macon, GA
- Oxford, MS
- Senatobia, MS
- New Orleans, LA
- Columbus, GA
- Huntsville, AL
- Fairhope, AL
- Mobile, AL
- Fort Walton Beach, FL

Hurricane Response

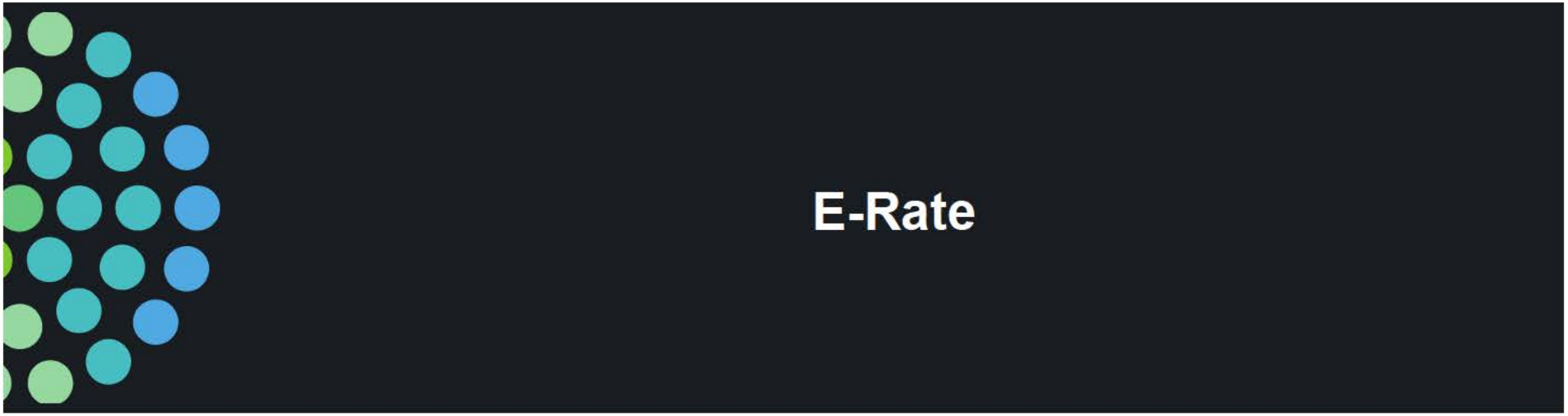
Hurricane Irma

Timeline

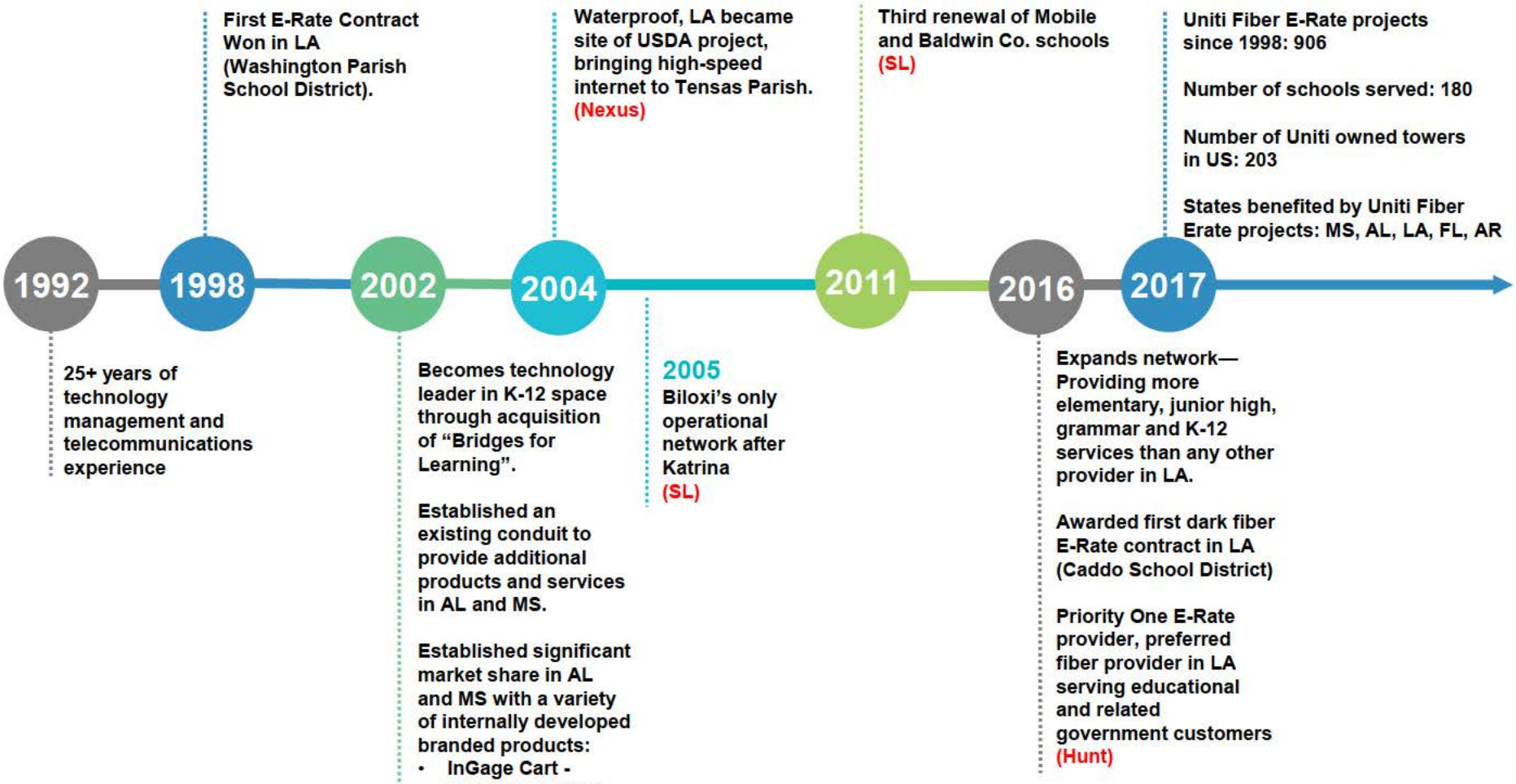
- 09/11 – Irma Strikes
- 09/12 – At height of disaster we had a large number of cell sites down. By end of the first day only 30% remained down.
- 09/13 – Work continues to bring network back online. Remaining down cell sites all due to loss of power. Dozens of generators deployed to bring sites back online.
- 09/14 – Approximately 5% of original sites remain down due to loss of power. Transition to sustainment operation. Monitoring and re-filling dozens of generators across hundreds of miles.
- 9/15 – Last few generators being removed from service as commercial power continues to come back on. Network continues to stabilize.

Massive Irma Response Effort

- **Responded to almost 200 unique outages through incredibly difficult conditions.**
- **Mobilized the entire company to ensure critical infrastructure restored.**


E-Rate

Uniti Experience Timeline (E-Rate Service Provider)



Uniti Fiber

E-Rate Experience

- **Uniti Fiber's extensive E-Rate expertise has facilitated in the deployment of fiber optic networks in secondary and tertiary markets**
- **Uniti Fiber E-Rate projects serve almost 300,000 students in 1,250 schools and libraries**

Broadband Deployment Policy Issues

Local Deployment Issues

Issues:

- Small Cell deployment issues (including local moratoria)
- Local franchising and permitting issues
- Florida registration issues
- Interstate ROW and bridge attachment access

Solutions:

- Prohibition of local “moratoria,” “abatements,” etc. on the acceptance or processing of franchise, registration, license, or permit applications for communications facilities, including fiber, small cells, or any other communications facilities.
- Consider means of ensuring that any local moratoria issued in defiance of FCC order can be addressed on an administrative basis, such as an FCC Declaratory Ruling process, rather than requiring a court order.
- Statewide cash security/bonding
- Shot clocks
- Conditional access to State DOT ROW’S and Bridges

Pole Attachment Issues

Issues:

- Pole attachment readiness issues significantly, and unnecessarily slow down network deployment
- Some jurisdictions differentiate permits, fees and other requirements based on status of applicant (ILEC v. CLEC v. CableCo)
- “Reciprocal” access to CLEC poles

Solutions:

- “One Touch Make Ready”
- Equal treatment for communications service providers
- When CLECs deploy their own poles, they should not be mandated to share access with other providers. “Reciprocal” access is misleading—ILECs and CLECs have far different bargaining positions.